PG&E Comments on the RETI Phase 2A Draft Report
July 10, 2009

RETI has accomplished the monumental task of developing an initial recommendation for further and immediate study of key projects that will help California meet its target 33% renewable portfolio requirements, taking environmental and economic concerns into account. PG&E supports RETI's recommendation for further and immediate study of foundation and delivery group lines. These lines strengthen the backbone transmission system, providing general system benefits that will allow for a significant increase in the energy from in-state renewable resources to flow to load centers. In support of furthering transmission plans to achieve 33% renewable portfolio compliance, PG&E is working with the California Transmission Planning group to determine the path forward for undertaking the necessary technical analysis of priority transmission projects.

While RETI's accomplishment is significant, it is important to note that the transmission projects supported by the RETI analysis are likely not all that are needed to meet California's renewable targets. PG&E cautions that the results of the Phase 2A study should be considered in the context of the uncertainty of the potential cost, amount, and permitability of renewable generation that will actually develop within preferred CREZs. It is important that load serving entities and regulators alike keep all options open for further study of renewable resource potential, including the import of renewable resources into California.

Transmission planning is a complex process with substantial uncertainty. One of the greatest uncertainties today is the amount and cost of new, renewable generation that will develop in areas that will be accessed by new transmission lines. This uncertainty is further complicated by related questions involving developer sponsorship, project financing, project siting, project permitting and mitigation, and the cost to develop and deploy a particular technology. The RETI study's candid acknowledgement that there is a great amount of uncertainty in the relative economic ranking of the CREZs,[1] strongly suggests that parties should continue to investigate all potential options, including those that may be out-of-state, in order to meet California's renewable targets both in the near and the long-term.

RETI's assessment of out-of-state resources in the Phase 2A draft report was preliminary in nature. RETI states that it intends to incorporate new information as it becomes available. Given this limitation and the preliminary nature of its findings, the RETI study is not intended to discourage further study of any areas with potential renewable development. For the reasons stated above, PG&E plans to continue to explore commercial arrangements for Canadian and out-of-state renewable resources, and transmission needed to access them. In its own Phase 1 analysis of British

[1] The uncertainty bands illustrated in Figure 5-6 on p. 5-21 of the RETI Phase 1B Report highlight the level of uncertainty in the relative ranking of the CREZs.

Columbia, PG&E arrived at initial estimates of between 30,000 and 57,600 GWh/yr of biomass, geothermal, small hydro, and wind resource potential that could be available by 2016.[2]

The Western Renewable Energy Zones Initiative (WREZ), which is a joint effort of the Western Governors' Association and the U.S. Department of Energy, has also identified significant renewable resource potential in British Columbia. The WREZ Phase 1 Report released in June 2009 identified 21,315 MW of potential renewable energy generating capacity corresponding to 66,010 GWh/yr of potential generation capability in British Columbia. This amount includes: 13,943 MW of wind capacity with generating potential of 34,104 GWh/yr; 340 MW of discovered geothermal with generating potential of 2,540 GWh/yr; 6,092 MW of hydro (22,372 GWh/yr)[3]; and 939 MW of biomass (6,994 GWh/yr).

As such, resources in British Columbia, along with those in Washington and Oregon, could play an important role in meeting future state requirements given the uncertainty surrounding the cost of deploying solar and other renewable technologies, and obtaining project siting and approvals in California.

The resource value in Canada is further enhanced by the ability to use existing hydroelectric facilities to compensate for intermittent wind resources, to increase line utilization and use of non-fossil resources, addressing a key integration issue with renewables. In order to illustrate the benefits of a firmed and shaped energy product, the WREZ Report identified a 16,000 GWh shaped energy product at the British Columbia-Washington border. This capability is central to the overall economic assessment of the Canada to Northern California transmission line, but a comprehensive assessment of renewables integration costs was beyond the scope of the RETI study. PG&E's own analysis indicates that—when all renewable resources that would be accessed by the Canada to Northern California transmission line are considered, along with product shaping and integration—the resources in British Columbia and the transmission line to access them are within the range of options that justify active and continued exploration, with the ultimate goal of meeting California's renewable energy targets.

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[2] The PG&E Phase 1 British Columbia Renewables Study is available online at: http://www.pge.com/mybusiness/customerservice/nonpgeutility/electrictransmission/canada/publicationsreports.shtml

[3] The WREZ analysis includes both small and large hydroelectric resources in this figure. PG&E's own analysis, referenced above, indicates that small, run-of-river, hydroelectric resources could account for between 3,100 and 6,150 MW of potential capacity or 12,500 to 24,700 GWh/yr of potential energy by 2016.